

MEASURING METHOD OF ACID CONCENTRATION FOR MIXED ACIDPICKLING SOLUTION BY FLUORIC ACID AND STRONG ACID

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Abstract

PURPOSE: To measure fluoric acid ion and cation of strong acid included with good accuracy, by performing measurement with the ion selective electrode, after diluting the recovered liquid which is obtained by dialysis for the mixed acid liquid used for cleaning of metal materials by means of cation exchange film, by means of specific salt solution.

CONSTITUTION: The recovery vessel 1 is sectioned with the cation exchange film 2, and mixed acid under use for pickling including metal ions is put in the left section great sufficiently, water is put in the right section sufficiently small, and dialysis is made for the fluoric acid ions and cations of strong acid in the mixed acid at left into water at right. Further, this is introduced to the mixed vessel 3 and after pouring the dilute liquid in the tank 4, it is moved to the detection vessel 5, and fluorine ion and cation are respectively detected with the fluorine selection electrode 6 and the cation selection electrode 7. As to the said dilute liquid, salt neutralizing weak acid by strong base, e.g., water solution of sodium citrate is used, and dilution is made so that the hydrogen ion concentration of liquid in the detection vessel 5 is not more than 10^{-5} mol/l.

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